

housewife or her daughter stepping on and off the bar, so as to raise the pestle and let it fall on the rice in the mortar. The rice is very thoroughly cleaned in this way, and Burmans prefer it to that which has passed between the mill-stones of the European factory. The Derbyshire, or composition stones, do their work only too thoroughly, and remove so much of the pellicle as to take away all the flavour, besides that the great heat caused by the steady grinding tends to the same result. Consequently the pleasant refrain of the girls chanting at their work may be heard all over the village after dark, and when a large quantity has to be prepared for some offering to the Sacred Order on a feast-day, the chanted chorus rises and falls round about the homestead often till long past "midnight cock-crow," till the rising of the "red star" warns them to retire to rest, tired, but happy, for such a good work earns great merit. A sesamum oil-press is also frequently found in at least one house in every village. This is equally simple in its construction. It consists of a deep wooden trough, in which the seeds are pressed by a heavy upright timber fixed in a frame. The weight is increased by a long lever, on the end of which a man sits and guides a bullock which goes round in a circle, thus crushing and turning the seed at the same time.

The carts are very strongly built, and are remarkable for the way in which the floor curves upwards towards the back in the same way as the boats do. In Upper Burma formerly the wheels were mostly composed of one solid, roughly-rounded slab of wood, or in some cases of two semicircular slabs joined together, and these are still found, but more and more rarely, in out-of-the-way places in the upper province, though wheels constructed in European fashion with spokes are mostly in use, and Government now prescribes a three-inch tyre on all district roads. Occasionally in the old days to save trouble the carter started with a square wheel, and trusted to time to round it for him. Padauk (*Pterocarpus indicus*) is the wood most valued for this purpose, but it is too expensive for most people. The wheels are never greased, and make hideous shrieking noises as they revolve. This serves to keep away tigers and wild

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animals generally when a journey is being made for any distance. At night the carts are arranged in a laager with the high backs outwards, and all inside, including even the pariah dogs, are safe from wild animals. The waggoners used to glory in the strident sound of their wheels, which often can be heard miles off in the forest. A wheel with a creak of particular volume and power of penetration is highly prized, and an experienced driver can tell whom he is going to meet or overtake by the groanings of the axles and the key in which they are pitched. Every bullock in addition carries a square metal bell tied under his throat.

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In the yard round about the house there is very often a little garden fenced off in a rough kind of way, but no particular care is taken to keep it neat and free from weeds—no easy matter even for an active gardener in Burma. The favourite plant is always the Bôddha Tharanat (*Canna Indica*, or Indian shot), so named from its seeds, which are used for the beads of the rosary. The flowers are red, or sometimes white. The fable relates that it sprang from the Buddha's blood. His impious and evil-minded brother-in-law and cousin Dewadat, enraged that he was not allowed to have a separate assembly of his own, went to the top of a hill and rolled down a huge stone, intending to destroy the most excellent payā. But the boulder burst into a thousand pieces, and only one little bit bruised Shin Gautama's toe, and drew a few drops of blood, whence sprang the sacred flower. The renowned physician Zewaka healed the great teacher's wound in a single day, and almost immediately afterwards the earth opened and swallowed up the sacrilegious Dewadat. The plants and flowers usually stand demurely in a single row, or perhaps in three or four, like a patch of peas. The *Datura tatula* is almost always found, and among the other mingled vegetables and medicinal plants the *Celosia cristata*, in both its yellow and purple varieties, is a special favourite. But the Burman can scarcely vaunt his success as a flower gardener.

There are always a few domestic animals and pets about the premises. Every family has its dog, which trots about the establishment and makes a terrible to-do whenever a white man appears. The pariahs are magnificent watch-

BOATS AND BOATMEN

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308. BURMAN CARTWRIGHTS.

ngapl, dried fish, salt and rice, besides imported goods. They bring down the manufactures of the North—cutch, lacquer, images, and *partikaya* wares. They have to endure a formidable competition from the river steamers. In its existing form, the boat of Burma presents no near affinity to the boats of neighbouring peoples. The types of architecture which the Burmans borrowed from

India they have treated in a distinctive way which gives them independent interest. But the art which culminates in the stately ship of the Irawadi is purely their own achievement. The work derives unity from the noble balance of the masses and life from the spirited sweep of the curves. The severity of line is relieved by plastic incident in the rich carving. The structure itself is patent and not concealed (with the exception noted), and the decoration goes hand in hand with it. Besides their own type of boat, the Shan type (No. 320) has been developed into a large craft for carrying earth-oil in bulk—the *peingdu*.

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315] Two long, partially-hollowed teak logs form the sides of the lower hull, with several thick planks intervening, for the flat bottom. Two planks above these complete the sides, all held together by nails and ribs as in the *laungzat*. There are outriggered bamboo galleries for the crew to row and pole, which allow

of the deck-house being carried from end to end, providing accommodation for several families. The rig is the same as in the *laungzat*. In tidal and salt waters, boats have to be beached once a month to bream the bottoms and destroy the teredo. The rest of the woodwork and tackle is protected with earth-oil.

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[177] The boats of Arakan are on Indian lines. There is



309. BUFFALO-CART.



307. TYREING THE WHEEL.

cent. of the whole population—"greatly in excess of the proportion borne to the total by the maritime population of the most maritime nation in the world" (Census report, p. 34). The only sea-going craft are the few score *kattu*, small junks of twenty to sixty tons, manned by five or six Taláings. They venture as far to sea as the Nicobars, where they ship cocoanuts in the fine or north-east monsoon. The rest of the year they lie by. The *kattu* are built at Dawé ("Tavoy"), and cost from one to two thousand rupees. They carry a compass of European make, for use in thick weather; but the navigation is empirical.

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493 The cart-building exemplifies the Burman love of curves. In Burma Proper the root-wood of *shd* (cutch) is dug out for the sake of the bent timber. In Pegu, curved branches of *thingán* are used for the body. For wheels, solid discs of *kaung-hnu* and other woods were used in Pegu, where timber grows large (No. 306). In the North, the solid wheel is still made up of three pieces, held together by mortices and tenons (Nos. 301, 309). *Pa-dáuk* is the wood preferred for these wheels. They have a very long box for the axle, which is of *pangá* wood; the axle-box is hooped with rattan. Since the introduction of spokes and iron tyres, skill has been concentrated on the wheel; the body of the cart preserves its local type. The Burman has proved the best wheelwright of the East, both

a shallow dug-out bottom with three or four side-planks built up from it. The planks are held together by cane lacing, with a caulking of grass. They are very crank, but are good sea-boats, nevertheless. The only decoration is a rough crocodile's head at the bow. The boat population of Burma in 1891 was nearly 84,000, or about 1·5 per



308. PLEASURE-CART, BURMA PROPER.

CARTS AND ROADS

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FIG. BURMAN PONIES.

for heavy wheels and the light spider wheels he uses in pleasure and racing-carts. He employs a very long hub to steady the wheel, which is as yet unprovided with turned axles and boxes. *Padduk* and *pyinkad* wood are used for hubs, with plain iron bushes at the ends. Teak is used for spokes and felloes. The axle is of imported round bar iron, with plain linch-pins; the end of the wooden axle-bed forms

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the shoulder. The bar-iron for tyres is likewise imported. Imported springs are coming into use for the light carts. European vehicles built by Chinese are used by well-to-do Burmans in the towns; they exemplify to the natives a novel departure in luxury, in which not splendour but comfort is the standard.

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The country roads are merely the tracks made by the carts. As the bullocks travel in the line of the wheels, the road is passable until the ruts are so deep that the axle-bed scrapes the mound in the centre. Then the track is abandoned for one to the right or left. The same thing happens when the road is too heavy or when a tree falls over it. In the rice country the grain is carted across the fields. But in the dry zone a roadway is left between the fences of the fields, as is also the case in the eastern hill-plateaux. A few state roads (*minlan*) following the high ground used to be kept clear, but the only regular road-making was done near to the capital. Cart-tracks do not penetrate the hill districts to any distance.

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The Burman pony is small—eleven to thirteen hands—but is said to have the best constitution and the greatest endurance of any breed. In Pegu, with its damp climate, the breed does not flourish so well as in the North. The ponies exported from Pegu are brought down from the



FIG. 11. WAYSIDE REST-HOUSE.